

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 16-33 are pending in this application. Claims 28-33 are added by the present response. Claims 16-27 were rejected under 35 U.S.C. §103(a) as unpatentable over applicant's admitted art of Figure 1 in view of U.S. patent 5,911,049 to Watanabe and U.S. patent 5,553,200 to Accad.

Addressing the above-noted rejection, that rejection is traversed by the present response.

Initially, applicant notes claims 16-27 are amended by the present response to clarify features recited therein. Specifically, independent claim 16 now clarifies that the first image data memory stores “compressed” image data and further that a “second image data memory configured to communicate with the first image data memory” is provided. Independent claim 16 further recites that “the compressed image data is controlled to be transferred from the first image data memory to the second image data memory, and then from the second image data memory to the image data processing unit, and wherein the image data processing unit decompresses the transferred compressed image data and outputs the decompressed image data to the print engine”. The other independent claims 20 and 24 are similarly amended as in independent claim 16. Such subject matter is believed to be fully supported by the original specification for example in Figure 15.

With respect to Figure 15 in the present specification as a non-limiting example, an image data processing unit 108 includes a graphics port 106 and a peripheral device interconnection port 109, the peripheral device interconnection port 109 configured to be connected to a print engine 110. Further, a first image data memory 104 and a second image data memory 107 are provided. A unit 103, shown in Figure 2 as a North Bridge (NB), is connected to the graphics port 106 of the image data processing unit 108 and has a function

to interface between the image data processing unit 108 and the first image data memory 104. Further, the first image data memory 104 is connected to the image data processing unit 108 via the unit 103.

Compressed image data is controlled to be transferred from the first image data memory 104 to the second image data memory 107, and then from the second image data memory 107 to the image data processing unit 108. The image data processing unit 108 decompresses the transferred compressed image data and outputs the decompressed image data to the print engine 110.

The above-noted features recited in the noted claims are believed to clearly distinguish over the applied art.

First, the admitted art of Figure 1 does not disclose any type of first memory, nor the transfer of compressed image data from a first memory to a second memory, and the decompression in an image data processing unit.

Moreover, no teachings in Watanabe or Accad disclose or suggest such features, nor were the teachings in Watanabe or Accad cited with respect to such features.

Watanabe is cited to disclose a printer controller board 201 connected to a printer engine 102a and a mother board 203, in Figure 6. However, Watanabe also does not disclose or suggest the clarified features of storing compressed image data in a first memory, transferring the compressed image data to a second memory, then decompressing the image data in an image data processing unit to output image data to a print engine. Thus, Watanabe cannot overcome the above-noted deficiencies of the admitted art of Figure 1.

Accad is merely cited to disclose the use of a bus bridge, but Accad does not provide any teachings that would cure the above-noted deficiencies of the admitted art of Figure 1 and Watanabe.

In such ways, each of amended claims 16-27 is believed to clearly distinguish over the applied art.

The present response also sets forth new claims 28-33 for examination, which are believed to also distinguish over the applied art.

New independent claims 28 and 29 are similar to claim 16, but do not recite the “unit connected to the graphics port”. However, for the reasons discussed above new independent claims 28 and 29 are believed to also distinguish over the applied art.

New independent claims 30 and 31 are similar to new independent claims 28 and 29 but further recite that the decompressed image data is output from the image data processing unit “in accordance with an output timing to output the decompressed image data to the print engine”. New independent claims 30 and 31 are believed to clearly distinguish over the applied art for similar reasons as discussed above.

New independent claims 32 and 33 indicate that the first image data memory stores non-compressed image data, the image data processing unit compresses the non-compressed image data and provides the compressed image data to the second image data memory, the image data processing unit retrieves the compressed image data and then decompresses the image data, and then the decompressed image data is output to the print engine. That subject matter is fully supported for example by Figure 16 in the present specification, and is believed to also distinguish over the applied art for similar reasons as discussed above.

In such ways each of new claims 28-33 is also believed to be allowable.

In view of these foregoing comments, applicant respectfully submits the claims as currently written distinguish over the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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